

TRUE SCIENCE IS THE CHRISTIAN'S FRIEND

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[EDITOR'S NOTE: The following article was written by A.P. auxiliary staff scientist Dr. Houts, who holds a Ph.D. in Nuclear Engineering from the Massachusetts Institute of Technology (MIT). Dr. Houts has received numerous awards, including a NASA Certificate of Appreciation for Exceptional Leadership. His professional activities include serving as Chairman of the Symposium on Space Nuclear Power and Propulsion. Dr. Houts spent 11 years at Los Alamos National Laboratory, serving in various positions including Team Leader for Criticality, Reactor, and Radiation Physics and Deputy Group Leader for a 70-person Nuclear Design and Risk Analysis Group. He presently serves as the Nuclear Research Manager for NASA's Marshall Space Flight Center. The opinions expressed are his own and not necessarily those of NASA.]

66 T dle babble and contradictions of what is falsely called knowledge" (1 Timothy 6:20) have led people astray since the beginning of time. An excellent 21st-century example is the theory of evolution, which in essence claims that the Universe and everything in it somehow made itself. Ironically, despite overwhelming evidence to the contrary, adherents to the theory are fond of claiming that evolution is somehow "scientific," and that modern society should accept it as fact. Their egregious misuse of the term "science" has made many Christians suspicious of the word. In the context of evolution, the word "science" often has nothing to do with the objective search for knowledge and everything to do with attempting to promote a contemporary false religion.

The Bible clearly teaches that God created the heavens and the Earth a few thousand years ago, in six literal days. An effective way to cast doubt on the Bible is to claim "science" has shown that a straightforward reading of the Bible cannot be trusted, and that the Bible must be continually re-interpreted by specialists to ensure that it matches contemporary human wisdom. If society can be convinced to view the Bible in that manner, then the Bible loses all significance. Biblical teaching will be accepted when it agrees with personal opinion and rejected when it does not. Paul's words to Timothy certainly ring true: "For the time will come when they will not endure sound doctrine, but according to their own desires, because they have itching ears, they will heap up for themselves teachers; and they will turn their ears away from the truth, and be turned aside to fables" (2 Timothy 4:3-4, emp. added).

False "knowledge" is continually used to attack the Bible. However, even a cursory examination shows that true science repeatedly confirms the Bible. Rather than being suspicious of "science," Christians can view true science as another tool God provides to help lead people to Christ. True science is the friend of the Christian and the enemy of the atheist.

Spontaneous Generation

Where would the spontaneous generation debate be if it were not for true science? Spontaneous generation (otherwise

known as "abiogenesis" or "biopoesis") is a fundamental tenet of evolution and other atheistic religions. Rather than acknowledging that God created all life, adherents to spontaneous generation claim that life was somehow able to make itself from inanimate matter.

Centuries before the birth of Christ, Greek "knowledge" insisted that spontaneous generation routinely occurred, and that for many species it was the norm rather than the exception (Balme, 1962). Analogous to what unfortunately still occurs today, many professed Bible believers tried to incorporate this "knowledge" into the biblical Creation account.

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They vigorously defended the distorted position even when secular opposition arose. For example, when Sir Thomas Browne appeared to question spontaneous generation in his work "Pseudodoxia Epidemica," the response from Alexander Ross (vicar of St. Mary's Church in the Isle of Wight and author of *The First and* Second Book of Questions and Answers upon the Book of Genesis) was quick and to the point: "To question this [the spontaneous generation of various insects and animals—MH], is to question Reason, Sense, and Experience" (Ross, 1652).

After centuries of false secular teaching in this area, true science finally advanced to the point where arguments in favor of spontaneous generation could be put to rest. From 1859 to 1861, Louis Pasteur performed a series of experiments to show that life does not spontaneously arise from non-life, but only comes from pre-existing life. His experiments were conclusive, yet until 1876, he was opposed by several prominent scientists, including Félix Archimède Pouchet, Director of the Museum of Natural History in Rouen, France (Gillen, 2008). In an attempt to retain or add credibility to the idea of spontaneous generation, disciples of evolution also began claiming they had discovered incredibly simple life forms. For example, German scientist Ernst Haeckel ("Darwin's Bulldog on the Continent") declared that he had discovered "Monera"-

organisms which are, in fact, not composed of any organs at all, but consist entirely of shapeless, simple, homogenous matter. The entire body of one of these Monera, during life, is nothing more than a shapeless, mobile, little lump of mucus or slime, consisting of an albuminous combination of carbon. Simpler or more imperfect organisms we cannot possibly conceive (Haeckel, 1876, 1:184).

In his book, Haeckel spoke of Monera as if their existence was an established fact. He claimed to have made "complete observations on the natural history" of Monera, even including drawings of Monera, and noting that other famous scientists (e.g., Huxley) had also discovered Monera (1:184).

Evidence that showed "Monera" to be lifeless, inorganic compounds was available as early as 1875. In that year it was determined that alleged "Monera" were nothing more than amorphous gypsum, precipitated out of sea-water by alcohol (Grigg, 1996). However, even with clear refutation from true, operational science, "Monera" continued to be presented as fact for over 50 years by atheists seeking to support evolution-based religions.

From the late 1800s through the present day, scientific evidence against the idea of spontaneous generation has accumulated at a tremendous rate. While many hoped the Miller-Urey experiment of 1952 would spark belief in evolution, most objective observers noted that the mixture of chemicals created (including ~2%

racemic amino acids) was not significantly closer to life than the original chemical reactants themselves. Intense efforts in biological research have since shown that the simplest life form is still vastly more complex than anything humans have ever been able to create. Even given the world's brightest Ph.D.s, incredibly sophisticated laboratories, and virtually unlimited funding, no one has ever come close to making life from non-life. Claiming that life could spontaneously arise from non-life is now known to be much less credible than claiming a space shuttle could randomly assemble and

Advances in true science have shown belief in spontaneous generation to be absurd, and informed evolutionists are very uncomfortable defending that foundational aspect of their religion. When forced, evolutionists are reduced to making statements such as "we know life spontaneously arose from non-life, we're just not sure exactly how." Such statements are analogous to saying "we know that gravity pushes, we're just not sure exactly how." Everything we know from true, operational science tells us that gravity **pulls**. While a person may choose to believe that gravity pushes, true science is against him. Likewise, everything we know from true, operational science tells us that life comes only from preexisting life, and that spontaneous generation (life arising from non-life) does not occur. While a person may choose to believe in spontaneous generation for religious reasons, true science is against him. Belief that life on Earth is the result of spontaneous generation is an affront, not only to the Bible, but to everything God has enabled us to learn from true, operational science.

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Vestigial Organs and Structures

True science has proven to be the Christian's friend in the area of vestigial organs and structures as well. A typical definition of a "vestigial structure" is a "structure that is remnant of an organism's evolutionary past and has no function; from the Latin vestigium, meaning footprint" (Johnson, 1998, p. 868). Throughout the 20th century, the idea of vestigial organs and structures was used to promote belief in evolution. The idea was that humans carry around numerous "useless body parts" (Selim,

2004) that developed in our evolutionary ancestors, but are no longer useful or needed. Proponents initially claimed there were 186 such organs and structures, and that these "mere vestiges" were "inexplicable by the doctrine of special creation" (Wiedersheim, 1895 p. 3). In talking about vestigial structures, Charles Darwin stated: "[F]ar from presenting a strange difficulty, as they assuredly do on the old doctrine of creation, [vestigial organs—MH] might even have been anticipated in accordance with the views [of evolution—MH] here explained" (1859, p. 350).

Much to the chagrin of evolutionists, as science advanced, vestigial structures were removed from Weidersheim's list one-byone. Today, functions have been found for all of the proposed 186 "vestigial" structures. Rather than providing support for evolution, the vestigial structures argument was merely an example of scientific ignorance (and atheistic arrogance) being used to promote a false religion.

Perhaps the most well-known "vestigial" structure was the vermiform appendix. Until late in the 20th century, there were no clearly identified functions for the appendix. In addition, it was established long ago that rupturing the appendix can result in a life-threatening infection. The combination of ignorance regarding function and the severity of acute appendicitis led many to regard the appendix as worse than useless. Evolutionists seized on that opinion to declare the appendix a vestigial organ, evidence (in their eyes) that their theory was true. Recent advances in biology, however, have identified numerous functions for the vermiform appendix, especially in early childhood. For example, researchers quoted in New Scientist note the following:

Although it used to be believed that the appendix had no function and was an evolutionary relic, this is no longer thought to be true. Its greatest importance is the immunological function it provides in the developing embryo, but it continues to function even in the adult.... The function of the appendix appears to be to expose circulating immune cells to antigens from the bacteria and other organisms living in your gut. That helps your immune system to tell friend from foe and stops it from launching damaging attacks on bacteria that happily co-exist with you. By the time you are an adult, it seems your immune system has already learned to cope with the foreign

substances in the gastrointestinal tract, so your appendix is no longer important. But defects in the appendix and other immune sampling areas may be involved in autoimmune diseases and intestine inflammation ("The Last Word," 2003, 177[2381]:65).

The same article notes that during fetal development, endocrine (hormone-producing) cells appear in the appendix. These cells produce peptide hormones that control various biological mechanisms (p. 65).

Other structures previously considered "vestigial" include the plica semilunaris, human hair, tonsils, the coccyx, the thymus gland, the pineal gland, and others. Important functions have been identified for each of these structures as well. Although now abandoned by many evolutionists, the argument that vestigial structures provide evidence for evolution is still mentioned in many textbooks and the popular media (e.g., Selim, 2004). An analogous argument flared up in the late 1990s, when evolutionists claimed that significant portions of human DNA are "junk" left over from our evolutionary past (Kuska, 1998). As our knowledge of DNA increased, that argument quickly faded. Although we still have much to unravel about how DNA works, we now know that sections of DNA called "junk" just a few years ago have many important functions (see Brooks, 2010, 30[10]:73-76).

Ironically, even if they had been real, vestigial structures would have been consistent with the Creation account. There have been over 6,000 years of natural selection and genetic degradation since Adam sinned. It is expected that many of our organs may not function as well as they did at the original perfect Creation. It is also possible that some functions may have been lost completely. [NOTE: An excellent summary of the "Vestigial Structures" argument is given in Bergman and Howe, 1990]. As in all other areas, true science related to "vestigial structures" supports the biblical account and refutes evolutionary theory.

Diversity of Life on Earth

In the 1800s, humans had no knowledge of how physical characteristics were passed from one generation to the next, or of how changes in characteristics could occur from one generation to the next. One popular theory was promoted by Jean Lamarck, who proposed a theory

of biological evolution over long ages by means of the inheritance of acquired characteristics (Lamarck, 1809). Lamarck gives several examples in his book, including the "fact" that giraffes became tall by continually stretching to reach leaves and then passing any increase in height to the next generation (p. 122). Charles Darwin supported a variety of potential options, including natural selection, pangenesis (similar to Lamarck's beliefs), and sexual selection.

The 20th century marked the discovery of DNA and the associated cellular machinery that makes DNA an incredibly sophisticated and efficient information storage system. We now know that the DNA of Adam and Eve was easily capable of containing all of the information needed to code for every diverse, physical characteristic that we see in humans today. Since Adam sinned, DNA has been affected by mutations and natural selection, but still contains a vast amount of diverse information. The diversity of life on Earth is well-explained by the effects of natural selection and mutations acting on the wealth of information present in the original created "kinds" (Genesis 1:25).

In the study of life's diversity, true science has once again proven to be the friend of the Christian and the enemy of the evolutionist. The difficulty for evolutionists is not only that they must believe in spontaneous generation (which science has shown impossible), they must also find a mechanism through which unfathomable amounts of genetic information could be added to the organism that somehow created itself. Thousands of mutations (the mechanism evolutionists propose for adding genetic information) have been studied, yet scientists have not found even a single one that added information to the genome (e.g., Lowe and Scherer, 1997). While evolutionists often like to focus discussions on mutations, natural selection, and variation within a kind (points on which evolutionists and biblical creationists agree), those processes cannot explain the creation of new genetic information and do nothing to help resolve this additional fundamental flaw in the theory of evolution.

To fend off critical analysis of this issue, evolutionists typically use a "bait and switch" technique in which they redefine evolution to mean any kind of change. They then go on to say that because we see changes in life, evolution is proven true.

They have even created a term ("microevolution") to describe the changes in life that we see today, with the desired inference that lots of "microevolution" (variation within a kind) could somehow lead to "macroevolution" (creation of completely new kinds).

The deceptiveness of this tactic is that microevolution is at best neutral, and most often actually results in a loss of genetic information. There have been no observed cases of microevolution increasing genetic information. From a "molecules to man" standpoint, microevolution thus either leads nowhere, or actually moves in the opposite direction from that required for "macroevolution." Microevolution does not lead to creation of completely new kinds; in reality, it leads to extinction.

The microevolution deception is prevalent in most biology textbooks. For instance, Johnson (1998) gives several "examples" of evolution, including Peppered Moths (no new genetic information), Darwin's finches (no new genetic information), and bacteria "evolving" resistance to antibiotics (no new genetic information or a loss of genetic information). None of the examples given in Johnson (or any other biology textbook) have anything to do with molecules-toman evolution, and many of the examples actually show the opposite of evolution (i.e., a **loss** of genetic information).

For evolutionists, the search for even a single example of information being added to the genome has become much like their search for a significant, defensible "missing link." The insinuation is that if an example of genetic information being added can be found, evolution will be proven true. However, that "logic" is like claiming a plane that can gain one foot of altitude for every 1,000 feet it loses is somehow proven flight worthy. Information theory also confirms the overwhelming loss of genetic information expected from random mutations, even with the mitigating effects of natural selection (Gitt, 1997).

Current Topics

Evolutionist Richard Lewontin is famous for his attempts to equate atheism with science. For example, in 1997 he stated: "We take the side of science *in spite* of the patent absurdity of some of its constructs, *in spite* of its failure to fulfill many of its extravagant promises of health

and life, *in spite* of the tolerance of the scientific community for unsubstantiated just-so stories..." (Lewontin, 1997, p. 31, italics in orig.). There is nothing patently absurd about **true** science. The idea that scientists must tolerate "unsubstantiated just-so-stories" is due solely to the unscientific mandate to protect the prevailing false religion of atheism's theory of evolution. Society's acceptance of that idea has likely done more to dissuade top students from pursuing degrees in certain scientific fields than any other single factor.

Fortunately, even secular scientists and members of the secular media are beginning to recognize the problem and are becoming less tolerant of the many "unsubstantiated just-so stories" put forth to promote evolution. For example, beginning May 16, 2009, a barrage of press releases proclaimed that worldrenowned scientists were about to reveal a revolutionary scientific find that would "change everything." The well orchestrated campaign was intended to create a level of anticipation that would keep people glued to the news as details emerged. In the end, the find ("Ida") turned out to be nothing more than a well-preserved fossil (95% complete, including fossilized fur and more) about the size of a raccoon, including a long tail. The fossil did not resemble a human skeleton, but looked very similar to a 21st-century lemur. The two main differences (lack of a "grooming claw" and a "toothcomb") were minor and easily explained by variation within a kind (see Lyons and Butt, 2009).

While any well-preserved fossil is of interest, the real breakthrough related to "Ida" was the reaction of a subset of the secular media to the extreme hype surrounding the find. For example, on May 19, 2009, *Time/CNN* ran an article titled "Ida: Humankind's Earliest Ancestor! (Not Really)." The article noted that "[f]rom the beginning, Ida's unveiling has been a master class in ballyhoo." The article further stated:

The press releases were followed by an international press conference at the American Museum of Natural History in New York City, the publication of a book, *The Link: Uncovering Our Earliest Ancestor* (Little, Brown), an *ABC News* exclusive and on May 25 a prime-time television special on the History Channel. Of the avalanche of media-related promotion, Jorn Hurum, a Norwegian paleontologist involved in

Ida's discovery, told the *New York Times*, "Any pop band is doing the same thing" (Lemonick, 2009).

In the case of "Ida," a handful of media outlets appeared to draw the line on how far they would go to help evolutionists sensationalize evolutionary claims. The media was even willing to point out that "renowned scientists" associated with "Ida" saw nothing wrong with promoting themselves in ways similar to modern pop bands. While not yet the norm, the reaction of some in the secular media to "Ida" was a positive sign.

Another indication that some in the media (and many scientists) have become less tolerant of "unsubstantiated justso stories" occurred just last month. On December 2, 2010, an astrobiology news conference was held at NASA Headquarters that received intense national and international media coverage before, during, and after the event. The conference focused on a strain of the Halomonadaceae bacteria called GFAJ-1 that lives in the high arsenic environment of Mono Lake, California. Extravagant claims were made during the conference, such as: "This is the equivalent of finding that Horta," in reference to the silicon-based life form featured in an episode of the original "Star Trek" series (Sheridan, 2010).

While much of the secular media played along with the "alien life has been found" theme (and the underlying theme that evolution must be easier than we thought), a significant subset gave a more balanced report. Major news outlets began releasing quotes from scientists who were openly skeptical about the conclusions presented at the news conference. For example, Rosie Redfield (director of a microbiology research lab at the University of British Columbia) was quoted as saying, "I don't know whether the authors are just bad scientists or whether they're unscrupulously pushing NASA's 'There's life in outer space!' agenda" (Sheridan). Many of Redfield's technical criticisms of the research are summarized in her statement: "There's a difference between controls done to genuinely test your hypothesis and those done when you just want to show that your hypothesis is true. The authors have done some of the latter, but not the former" (Sheridan).

Other scientists expressed similar concerns. For example, John Roth (University of California at Davis) noted: "I suspect

RESOURCES—FEATURE ARTICLE

The Question of Inerrancy

J.W. McGarvey

[Editor's Note: The following article was penned by J.W. McGarvey and originally appeared in the May 27, 1893 issue of *Christian Standard*, reprinted in McGarvey, 1910, pp. 36-39. While the specific occasion that elicited the article has long since passed, the principles have not, since they still afflict the thinking of modern liberal theologians. We commend this timeless article to your consideration.]

I believe it was Professor Briggs who first introduced the current use of the term "inerrancy" in the controversy about the character of the original Scriptures. If he did not, he at least has given it its chief conspicuity in recent discussions. It is well-known that no intelligent man claims inerrancy for the printed Bibles which we now use, whether in the translations or the original tongues. The question has never had reference to any other than the language of the inspired writers, as distinguished from the alterations and interpolations which have been introduced by copyists and editors. In other words, it has reference to the autographic writing of the authors of the books. Instead of meeting the question fairly, those gentlemen who are so fond of an errant Bible, have taken a great deal of pains to obscure the real issue by throwing dust into the air. Professor Warfield, of Princeton, has an excellent article in the Independent of March 23, in which he scatters this dust, and lays bare the real issue in a most intelligible manner. We quote him:

We have heard a vast deal of late of "the first manuscripts of the Bible which no living man has ever seen," of "Scriptures that have disappeared forever," of "original autographs which have vanished;" concerning the contents of which these controversialists are willing to declare, with the emphasis of italics, that they know nothing, that no man knows anything, and that they are perfectly contented with their ignorance. Now, again, if this were to be taken literally, it would amount to a strong asseveration that the Bible, as God gave it to men, is lost beyond recovery; and that men are shut up, therefore, to the use of Bibles so hopelessly corrupted that it is impossible now to say what was in the original autographs and what was not! In proportion as we draw back from

this contention—which is fortunately as absurd as it is extreme—in that proportion do we affirm that we have the autographic text; that not only we, but all men, may see it if they will; and that God has not permitted the Bible to become so hopelessly corrupt that its restoration to its original text is impossible. As a matter of fact, the great body of the Bible is, in its autographic text, in the worst copies of the original texts in circulation; practically the whole of it is in its autographic text in the best texts in circulation; and he who will may today read the autographic text in large stretches of Scripture without legitimate doubt, and, in the New Testament at least, may know precisely at what rarely occurring points, and to what not very great extent, doubts as to the genuineness of the text are still possible.

The Professor might have added that this autograph, thus accurately preserved, and now in the hands of every reader of the corrected Greek text of the New Testament, is faithfully represented to the eye of every English reader in the renderings and marginal readings of the Revised Version. For while, as the textual critics make plain to us, seven-eighths of the words of the New Testament are now printed in the very form in which they came from the original penmen, and nine hundred and ninety-nine thousandths of it absolutely so in meaning; and while we can put our finger on every word about which there remains any doubt; the marginal readings of the revised New Testament enable the reader who knows not a word of Greek to put his finger also on these words, and to know that all the rest are precisely those of the autographs. It is a most mischievous and deceptive device, therefore, originating from the heat of controversy, to speak of the autographic writing of the apostles as though it were lost to the world, never to be known again except by conjecture. Thank God, we have it in a purer form than our fathers had, even back to the early ages of the faith; and with this autographic writing in our hands, we stand before those who would criticize its representations, and say: Gentlemen, show us an error here which by



RESOURCES—FEATURE ARTICLE (confinued)

a fair logical process can be certainly charged to the inspired penmen, and we will concede that to this extent their inspiration failed to guard against error. You have not done so yet; for all the specifications which you have made fail of this essential condition. We would caution them also to remember that there is the breadth of the heavens between infinitesimal errors of detail in a very few instances, and such errors as they are constantly charging upon the Scriptures, errors in which multitudes of facts, arguments and inferences in every part of the Bible are discredited at the good pleasure of

every opinionated critic. The former would be a puzzle worthy of profound consideration and an earnest effort at solution; but the latter makes the Bible less reliable as a record of facts than Macaulay's *History of England* or Bancroft's *History of the United States*. We want no such Bible as that, and the coming generation will have none at all if that is the alternative

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In THE NEWS

When Moses recorded God's promise to Abraham about the multitude of Abraham's descendants, the ancient readers did not have any idea just how right Moses was. In Genesis 15:5, God said to Abraham: "Look now toward heaven, and count the stars if you are able to number them. So shall your descendants be." God used the incalculable number of the stars as a hyperbole to explain to Abraham that his descendants would be incalculable as well. This sentiment was reiterated in Jeremiah 33:22 when God promised: "As the host of heaven cannot be numbered, nor the sand of the sea measured, so will I multiply the descendants of David My servant and the Levites who minister to Me."

The fact that the stars are innumerable aids in defending the Bible as divinely inspired (see Butt, 2002). But recent research makes that point even clearer. New discoveries and calculations by researchers from Yale and Harvard suggest that our generally accepted estimations about the number of stars are considerably wrong. The fresh data published in *Nature* indicates that "there are a mind-blowing 300 sextillion of them [stars—KB], or three times as many as scientists previously calculated. That is a 3 followed by 23 zeros or 3 trillion times 100 billion" (Borenstein, 2010).

These new numbers are based on the idea that elliptical galaxies are composed differently than spiral galaxies like our own Milky Way. Yale astronomer Pieter van Dokkum, using the Keck telescope in Hawaii, recently peered into eight elliptical galaxies and explained: "We're seeing 10 or 20 times more stars than we expected" (as quoted in Borenstein, 2010).

The fact that our best astronomical star counts could be off by over 200 sextillion stars tells us much about what scientists really know. First, it helps us understand that astronomers and cosmologists are often wrong—on a very large scale. Those who have scrutinized the modern notion of the Big Bang have been aware of this for a while (see May, et al., 2003). Second, it adds more credence to the biblical truth that the stars are, veritably, innumerable. Third, it underscores the psalmist's statement that "the heavens declare the glory of God and the firmament shows His handiwork" (Psalm 19:1). Not a shred of legitimate scientific evidence can suggest a reasonable, naturalistic cause for such a massive amount of stars. Only an omnipotent, supernatural Creator supplies the necessary power for such an immense, star-filled sky.

Kyle Butt

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that NASA may be so desperate for a positive story that they didn't look for any serious advice from DNA or even microbiology people" (Sheridan). When the individuals at the news conference refused to respond to criticism, Jonathan Eisen (evolutionary biologist at the University of California at Davis) noted: "If they say they will not address the responses except in journals, that is absurd. They carried out science by press release and press conference. Whether they were right or not in their claims, they are now hypocritical if they say that the only response should be in the scientific literature" (Zimmer, 2010).

Despite the excitement, it is also important to note that the GFAJ-1 discovery did absolutely nothing to change the impossible odds against spontaneous generation. The find merely accelerated the circular reasoning of evolutionists. In their minds, since they "know" that life must have somehow made itself, any evidence of distinctly different life forms must be interpreted to mean that life made itself twice! Centuries of **true** science have shown that the only reasonable explanation for life is that it was created, and that life in the natural world only comes from pre-existing life.

True Science and the Age of the Universe

Additional examples of true scientists being willing to challenge "unsubstantiated just-so stories" are found in areas related to estimating the age of the Universe and the Earth. Although the age of the Universe does not affect the viability of evolution (evolution does not work, regardless of the age of the Universe)

the topic is very important for shaping society's view of the Bible.

As an aside, what if there really were billions of years for life to evolve? Evolutionists have answered that question themselves. For example, in his book Communication with Extraterrestrial Intelligence, Carl Sagan noted that the chance of even a single simple protein forming (still very far from "life") is roughly 1 in 1 followed by 130 zeroes, i.e., 1 in 10¹³⁰ (Sagan, et al., 1973, p. 46). Sagan then states: "[I]t is clear that one could randomly assemble all the elementary particles in the universe a billion times a second for the age of the universe and never get this protein" (p. 46). Ironically, on the same page, Sagan further states: "There is no doubt about the fact of evolution, but there are still sizeable questions on the mechanics of the evolutionary process." Sizeable questions, indeed! Showing a theory to be mathematically impossible, while simultaneously claiming it to be fact, is not scientific.

The famous British astronomer Sir Frederick Hoyle performed a similar calculation, showing that the chances of just the proteins in a simple amoeba spontaneously forming to be 1 in 1 followed by 40,000 zeroes, i.e., 1 in 10^{40,000}. However, rather than attempting to claim evolution was still somehow "fact," Hoyle developed an alternative theory, claiming that aliens were responsible for putting life on Earth, and for millions of years since, those aliens have been directing our evolutionary progress (Hoyle, et al., 1984). While popular in some circles, Hoyle's theory still fails to answer fundamental questions, such as "where, then, did the aliens come from?"

If the age of the Universe does not affect the viability of evolution, should Christians simply twist Scripture to accommodate whatever age an evolutionist desires? The Bible provides answers. First Peter 3:14-15 states: "But even if you should suffer for the sake of righteousness, you are blessed. And do not fear their intimidation, and do not be troubled, but sanctify Christ as Lord in your hearts, always being ready to make a defense to everyone who asks you to give an account for the hope that is in you, yet with gentleness and reverence" (NASB, emp. added). So in the first place, Christians must not be intimidated by evolutionists, and should be prepared to provide a defense against evolution and any other false teaching.

Second, Christians must not distort Scripture in an attempt to find a position of compromise with evolutionists. Peter warned against mishandling the Scriptures, saying, "in which are some things hard to understand, which untaught and unstable people twist to their own destruction, as they do also the rest of the Scriptures" (2 Peter 3:16). This is an extremely important point, in that many sincere individuals who generally believe the Bible also feel strongly that Christians must continually "interpret" the Bible to keep it consistent with contemporary "science." Some go so far as to believe that evolutionists are so convincing that we must provide our children with compromise positions or our children will lose their faith. Proverbs 14:12 applies: "There is a way that seems right to a man, but its end is the way of death."

Third, the New Testament warns us that even members of the church will be led astray and begin promoting false teachings. Paul warned the elders of Ephesus, saying, "For I know this, that after my departure savage wolves will come in among you, not sparing the flock. Also from among yourselves men will rise up, speaking perverse things, to draw away the disciples after themselves" (Acts 20:29-30). Indeed, many professed Christians have written papers or entire books denying the Creation account, or attempting to distort the straightforward teaching of the Bible, to accommodate the theory of evolution. Some of these false teachers continue to draw significant followings, leading many astray (see, for example, the review of Clayton in Jackson and Thompson, 1992). Christians should

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guard themselves against this danger and be unwilling to twist Scripture regardless of the prominence of the speaker. "Test all things; hold fast what is good" (1 Thessalonians 5:21).

It is hard to imagine how God could have made it any clearer that He created the Universe in six literal days a few thousand years ago, and that the Flood described in Genesis 6-9 covered the entire Earth. Given the weakness of current atheistic theories, it is also hard to imagine why some professed Christians feel compelled to distort Scripture in an attempt to accommodate a 13.7 billion year old Universe and some type of non-global flood. If "science" proves we have no free will, should the Bible be "interpreted" to say that criminals are not responsible for their actions? "Science" has already proven that resurrection from the dead is impossible—should we interpret the Bible accordingly? Where do the compromises stop?

As in all other areas, true science is the Christian's friend when discussing the age of the Universe. For example, advances in true science enabled astronomical observations that cast doubt on the Big Bang theory. In response, supporters of the "Big Bang" created a series of fudge factors (e.g., Dark Energy, Dark Matter, Dark Flow, Dark Light, etc.) that can be used as needed to pretend that the "Big Bang" is somehow valid. To make the theory work, these fudge factors are now said to make up 96% of the Universe! (See Houts, 2007, p. 92).

This desperate attempt to salvage the "Big Bang" has not gone unnoticed by other secular scientists, who have gone so far as to sign a petition suggesting that **objective** discussion of the "Big Bang" and the development of alternative theories be allowed. Their full petition is available at "cosmologystatement.org," but two particularly telling paragraphs read as follows:

1. The big bang today relies on a growing number of hypothetical entities, things that we have never observed—inflation, dark matter and dark energy are the most prominent examples. Without them, there would be a fatal contradiction between the observations made by astronomers and the predictions of the big bang theory. In no other field of physics would this continual recourse to new hypothetical objects be accepted as a way of bridging the gap between theory

- and observation. It would, at the least, raise serious questions about the validity of the underlying theory (emp. added);
- 2. What is more, the big bang theory can boast of no quantitative predictions that have subsequently been validated by observation. The successes claimed by the theory's supporters consist of its ability to retrospectively fit observations with a steadily increasing array of adjustable parameters, just as the old Earth-centered cosmology of Ptolemy needed layer upon layer of epicycles.

The petition signers go on to note that "the big bang is not the only framework available for understanding the history of the universe." While they may have other atheistic theories in mind, there are also biblically consistent frameworks for interpreting the evidence we see in light of a Creation that is a few thousand years old.

Another important observation is that rigid adherence to atheistic principles often squelches potentially significant research. For example, consider the August, 2009 paper published in the *Proceedings of the National Academies of Science* and quoted in the popular press, including *USA Today* (Vergano, 2009):

Mathematicians have come up with an answer Monday for the mystery of 'dark energy' tearing the universe apart at an accelerating rate. It ain't there. Blake Temple and Joel Smoller suggest that "expanding waves" from the Big Bang "are propelling the trillions of galaxies filling the universe apart.... Dark energy is an illusion if their equations are right." However, "the only problem is that for the equations to work, we must be 'literally at the center of the universe..." says physicist Lawrence Krauss of Arizona State University in Tempe. I think this is plausible mathematics, but it doesn't seem physically relevant.

Science News publicized an analogous article from *Physical Review Letters* in 2008, stating:

If Earth and its environs are centered in a vast, billion-light-year-long bubble, relatively free of matter, in turn surrounded by a massive, dense shell of material, then gravity's tug would cause galaxies inside the void to hurtle toward the spherical concentration of mass, say theorists Robert Caldwell of Dartmouth College and Albert Stebbins of the Fermi National Accelerator Laboratory in Batavia, Ill. That process would mimic the action of dark energy—a local observer would be tricked into

thinking that the universe's expansion is accelerating (Cowen).

The article further notes: "But that scenario violates the Copernican principle, a notion near and dear to the hearts of physicists and cosmologists, including Caldwell and Stebbins" (Cowen).

Both models eliminate the need for "Dark Energy," the fudge factor that accounts for 73% of the Universe according to the traditional Big Bang theory. However, neither model has been seriously pursued because both violate the arbitrary assumption that the Earth cannot be in a special location (e.g., "Copernican principle"). Many cosmologists feel (rightly) that a special location would imply the existence of God.

But what if the Earth is in a special location? The secular models described in the *Proceedings of the National Academies of Science* and *Physical Review Letters* actually correspond quite well with the biblically consistent models proposed by Russ Humphreys and others, especially when the potential effects of gravitational time dilation are taken into account (Humphreys, 1994). These models explain how stars that are billions of light years distant can be seen from an Earth that is 6,000 years old, all based on a straightforward reading of the Bible.

Related to the age of the Earth, considerable evidence exists that radioactive decay rates were different in the past (DeYoung, 2005). Recent **true** science also suggests that radioactive decay rates (typically assumed to be constant) can change due to causes that are not yet fully understood. For example, in August of 2010, a team of scientists from Purdue and Stanford universities announced that the decay of radioactive isotopes fluctuates in sync with the rotation of the Sun's core. The team has published a series of articles in Astroparticle Physics, Nuclear Instruments and Methods in Physics Research, and Space Science Reviews. Although the measured change in decay rate is small ($\sim 0.1\%$), the fact that change occurs at all is extremely significant. Team member Jere Jenkins noted: "[W]hat we're suggesting is that something that can't interact with anything is changing something that can't be changed" (Gardner, 2010).

Scientists have also discovered that changes in radioactive decay rates can be induced. For example, the June 8, 2009 *CERN Courier* noted:

It is a common belief that radioactive decay rates are unchanged by external conditions, despite many examples of small shifts (particularly involving external pressure and K-capture decays) being well documented and understood. However, Fabio Cardone of the Institute per lo Studio dei Materiali Nanostrutturati in Rome and colleagues have shown a dramatic increase-by a factor of 10,000-in the decay rate of thorium-228 in water as a result of ultrasonic cavitation. Exactly what the physics is and whether or not this sort of effect can be scaled up into a technology for nuclear waste treatment remain open issues (Reucroft and Swain, 2009).

Most available dating methods indicate a young (i.e., few-thousand-year-old) Earth (cf. Humphreys, 2005). The modern foundation for claiming an old (i.e., 4.54-billion-year) Earth is radiometric dating and the assumption that radioactive decay rates have always been constant. Biblically consistent models typically assume accelerated radioactive decay during Creation week and/or the Flood. The fact that fluctuations in radioactive decay rates are observed even today indicates that God designed nuclei such that changes in radioactive decay can occur, giving the potential for greatly accelerated radioactive decay under certain conditions. Technical concerns with biblically consistent models are also being addressed by modern science. For example, a change in decay rate would also change the amount of energy released per decay, potentially resolving the concern that the Earth could overheat during a time of greatly accelerated radioactive decay.

To be clear, the "Big Bang" and the assumption of constant radioactive decay rates still dominate the thinking of cosmologists and other secular scientists. However, ongoing advances in **true** science are making it easier and easier for Christians to challenge those assumptions, even from a purely technical standpoint.

CONCLUSION

Bible-believing Christians are often portrayed as scientifically ignorant or anti-science. This portrayal is perpetuated, not only by the secular world, but by individuals who profess a belief in God but are willing to reject a straightforward reading of the Bible in order to accommodate contemporary human wisdom. Christians can inadvertently reinforce this "anti-science" stereotype if they do

not distinguish between the statements of scientists and the statements of atheists who happen to have scientific credentials.

"Sanctify them by Your truth. Your word is truth" (John 17:17). Throughout the ages true science has repeatedly confirmed Christ's words. True science is the Christian's friend, and the enemy of the evolutionist.

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NOTE FROM THE EDITOR

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Imagine assembling a team of qualified, academically credentialed scientists who believe strongly in God and His Bible account of Creation. Contemplate having these men write articles and books, and conduct seminars around the country in which they present scientific evidence that refutes atheism and evolution, while demonstrating the Bible account to be consistent with true science. We are deeply grateful to God that He is enabling Apologetics Press to accomplish these worthy objectives. Consider two indicators we have recently experienced:

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Second, we are also pleased to announce the completion of an outstanding new tool to combat the forces of atheism, skepticism, and evolution. The seminar conducted by A.P. auxiliary staff scientist Dr. Michael Houts is now available on DVD, consisting of six 40-minute sessions on the overall topic: "Evolution is Religion—Not Science." Is Dr. Houts qualified as a scientist to make such a claim? Seeing he graduated from the prestigious MIT with a doctorate in Nuclear Engineering and is Nuclear Research Manager at NASA, I would think so. But you be the judge; secure the DVD and see for yourself. (See the center spread for more details).

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Dave Miller

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